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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,077	12/04/2003	Fabienne Pianta	2794-1-001	7960

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KLAUBER & JACKSON
4th Floor
411 Hackensack Avenue
Hackensack, NJ 07601

EXAMINER

FORTUNA, JOSE A

ART UNIT	PAPER NUMBER
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1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/728,077	Applicant(s) PIANTA ET AL.	
	Examiner José A. Fortuna	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 1130.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 2642 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/08/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: in paragraph [0034] applicants refer to a paste, e.g., virgin paste, recycle paste, etc.; the meaning of those terms is unclear. For the purpose of this office action the term paste has been interpreted as "Fiber or Pulp" i.e., virgin fiber/pulp, recycled fiber/pulp, etc.

Appropriate correction/clarification is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 5 are vague and indefinite since basis for the distance has not been recited, i.e., from 1 to 70 cm from what to what? Does the distance refer to the distance between the web and the nozzles or the downstream distance from the headbox?

Claims 19-20 are vague and indefinite as to what is "a return"?


In claims 36-37 the meaning of the phrase is unclear, what is been extracted? If applicants means on a dry basis then it should be corrected.

4. Claim 40 is vague and indefinite as to the meaning in the context of the word "paste." See also the objection to the specification, above. The claim is vague and indefinite, because the

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word “paste” does not identify a product, but its condition or state¹. Note that also the claim is also an omnibus claim since it claims all type of pastes and the metes and bounds of patent protection desired cannot be ascertained. Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

¹ A paste is defined as:

paste¹  (pāst) [Pronunciation Key](#)

n.

1. A soft, smooth, thick mixture or material, as:
 - a. A smooth viscous mixture, as of flour and water or of starch and water, that is used as an adhesive for joining light materials, such as paper and cloth.
 - b. The moist clay or clay mixture used in making porcelain or pottery. Also called *pâte*.
 - c. A smooth dough of water, flour, and butter or other shortening, used in making pastry.
 - d. A food that has been pounded until it is reduced to a smooth creamy mass: *anchovy paste*.
 - e. A sweet doughy candy or confection: *rolled apricot paste*.
 - f. A hard, brilliant, lead-containing glass used in making artificial gems.
 - g. A gem made of this glass. Also called *strass*.
2.
 - a. A hard, brilliant, lead-containing glass used in making artificial gems.
 - b. A gem made of this glass. Also called *strass*.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6-8, 10-13, 17-18, 22-24, and 32-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Coleman, US Patent No. 4,008,121.

Regarding claims 1-3, 6-8, 10-13, 17-18 and 41-42, Coleman teaches a method of coating pigment particles on paper plies, in which the particles are coated/spread between a pair of plies. The pigments are preferably clay particles; same as claimed and they are used between 5 to 60 grams/m² or gsm, see abstract. Figure 1 shows that the spreading means are disposed in variable position with respect to the wet end, see nozzles 23-25. Coleman teaches that the preferred pigments particles are, clay and titanium dioxide and that it is applied to the web in form of a suspension, which can contain a binder, preferably a starch, see column 1, lines 38-44. Coleman also teaches that the pigment can be incorporated into the web with or without the use of a binder and that spraying technique could be used, see column 2, lines 19-27. Regarding claims 22-25, the penetration of the pigment would be inherent to Coleman's invention, since this a property of the wet end of the papermaking system, i.e., the dewatering of a web in the wet end of a papermaking machine decreases downstream, and therefore, the closest to the headbox an additive is applied, the most it penetrates through the forming web. Note that the papermaking machine, at the wet end, includes vacuums underneath the forming wire. Coleman

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teaches also that the web is formed into a paper or paperboard; see abstract and column 1, lines 22-27 for example. As to the different type of board machines of claim 24, Coleman shows the use of Fourdrinier machines in figure 1 and column 4, line 64 through column 5, line 12. With regard to claims 32-40, Coleman teaches the suspension of the filler/pigment and starch having overlapping amount of water, column 4, lines 32-49; also in the same lines Coleman teaches the speed of the web which falls within the claimed range.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 4-5, 9, 14-16, 19-21 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman, cited above.

Coleman has been discussed above. Coleman is silent with regard to the specifics of the above claims, i.e., the distance of the introduction of the fillers, nor the angle of inclination of the spray nozzles, nor the specifics of the fillers, e.g., types, such as calcium carbonate and calcium sulfate, size distribution, etc. However, the claimed fillers including the specific of them, e.g., size distributions, and different hydrates of the same compound, (Calcium Sulfate), are very well known in the art, and the use of such filler(s) would have been obvious to one of ordinary skill in the art². As to the use of sprays and the specific of the position of the spray with respect to web or the headbox, this is considered to be within the levels of ordinary skill in the art as an obvious optimization of a result effective variable, absent a showing of unexpected results. It has been held that “[T]he discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art. *In re Antoine*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); *In re Aller*, 42 CCPA 824, 220 F.2d 454, 105 USPQ 233 (1995).”

11. Claims 1-, 24 and 26-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson, US Patent No. 2,286,924.

² The examiner takes official notice of this/these facts and would present proof if and/or when required.

Nicholson teaches a multiply/multilayer paper or paperboard in which additives such as sizing, pigments and fillers, are added in between the layers, see column 1, lines 34-55 and column 2, lines 11-16. Nicholson teaches that a Fourdrinier machine could be used and that the additives, including fillers, are added before the bonding of the plies and the same type of pulps, i.e., Virgin Kraft pulps can be used as the layers. Even though Nicholson is silent with regard to the specifics of the fillers additives, but the claimed fillers including the specifics of them, e.g., size distributions, and different hydrates of the same compound, (Calcium Sulfate), are very well known in the art, and the use of such filler(s) would have been obvious to one of ordinary skill in the art³. As to the use of sprays and the specifics of the position of the spray with respect to web or the headbox, this is considered to be within the levels of ordinary skill in the art as an obvious optimization of a result effective variable, absent a showing of unexpected results. It has been held that "[T]he discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art. *In re Antoine*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); *In re Aller*, 42 CCPA 824, 220 F.2d 454, 105 USPQ 233 (1995).

Response to Arguments

12. Applicant's arguments with respect to claims 1-24, 26-42 are have been considered but are moot in view of the new ground(s) of rejection.

13. Applicant's arguments filed on November 30, 2006 have been fully considered but they are not persuasive.

³ The examiner takes official notice of this/these facts and would present proof if and/or when required.

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With respect to the objection to the specification and the rejection under 35 U.S.C. §112, 2nd paragraph, on the use of the word paste: Applicants arguments are not convincing, because the word “paste” does not identify a product but its condition or state. There can be innumerable products that can be used in a paste form in the a papermaking operation, i.e., fillers, coatings, strength and softener agents, etc., but one cannot identify the product by its adjective.

With regard to the 112 rejection of claims 4 and 5, this rejection has been maintained, since, *supra*, there are several interpretations to the distance, i.e., distance from the tip of the nozzles to the web or the distance from some part of the nozzles to the web or the downstream distance from the headbox, etc., therefore, the basis should be clearly defined.

With respect to the use of the term “return,” applicants arguments are not convincing, as to the meaning of the phrase is “return valve” since it could be “return pipe” or just a electrical return, etc. Therefore, the term must be clearly defined.

With regard to the 102 rejection over Coleman, applicants’ arguments are not convincing, because Coleman clearly states that the preferred fillers are Clay and/or Titanium dioxide, column 1, lines 41-44. The latter is still part of the fillers and therefore, Coleman still anticipates the claims. Furthermore, even if the Titanium Dioxide were deleted from the claim, the use of the other fillers from the Markush Group would have been obvious to one of ordinary skill in the art since they are well known in the art and one of ordinary skill in the art would have reasonable expectation of success if they were used as the fillers of Coleman. Note that Coleman teaches that Clays and Titanium Dioxide are the

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preferred fillers, column 1, lines 41-44, which clearly indicates that other fillers could be used, i.e., It has been held that “[R]eferences are not limited to preferred embodiments.”

In re Boe, 148 USPQ 507 (CCPA 1966). Also, it has been held that all the disclosure in a reference must be evaluated for what they fairly teach one of ordinary skill in the art. *In re* Smith, 32 CCPA 959, 148 F.2d 351, 65 USPQ 167; *In re* Nehrenberg, 47 CCPA 1159, 280 F.2d 161, 126 USPQ 383; and *In re* Watanabe, 50 CCPA 1175, 315 F.2d 924, 137 USPQ 350.

With respect to the 103 rejection in view of Coleman, applicants’ arguments are not convincing, because the alleged unexpected results are not so unexpected, since one of ordinary skill in the art would certainly foresee the reduction in cost and penetration of the fillers onto the mesh depending upon the distant of the application. Furthermore, the lack of use of chemical agents and 70% or higher filler retention is not commensurable in scope with what is been claimed, since the claims are open to other components. The size distribution of the Calcium Sulphate as claimed is also known; see for example EP 0692 456 A1. In any event, not enough evidence is presented to conclude unexpected results nor the claims are commensurable in scope with such unexpected results, i.e., the claims are broader than it’s being argued.

With respect to the rejection over Nicholson, applicants arguments are also unconvincing, because, the cited reference teaches the same process, but they are silent with respect to the specific fillers to be used, i.e. the reference teaches the use of fillers without mentioning a specific one. However, the use of the claimed fillers is well known in the art, this fact has not been refuted by applicants and therefore, one of ordinary skill in the art would reasonable expectation of success if any one of the fillers of the claimed Markush group were used in the

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cited reference. Therefore, Nicholson teaching makes obvious at least claims 1-3, 6-8, 10-13, 17-18, 22-24, and 32-42.

As to claims 4-5, 9, 14-16, 19-21 and 26-31, the examiner still contends that choosing the fillers size distribution and distance of the addition of the additives would have been obvious to one of ordinary skill in the art, *Supra*.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

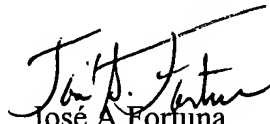
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A. Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


José A Fortuna
Primary Examiner
Art Unit 1731

JAF